

**Iowa Department of Natural Resources  
Natural Resource Commission**

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**ITEM**

**7**

**DECISION**

**TOPIC**

Lake Restoration Assessment with Iowa State University – Establishing Benchmarks of Biological Integrity Before and After Lake Restoration

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The Commission is requested to approve an agreement with Iowa State University (ISU) to conduct a five-year study on the Department's lake restoration activities. Specifically, ISU will provide an index of key indicators for the Department to use when determining success rates of its restoration activities and will provide performance measures the Department may use when entering into contracts for restoration activities in the future. The study will look beyond typical water quality analyses and will also evaluate the fish and benthic invertebrate community. The study will focus both on lakes in targeted for restoration activities as well as those that have been restored but are in need of additional protection and monitoring. A sampling/data analysis manual and a web-accessible database for entering/retrieving data and calculating the bioassessment indicators will be provided for use by "field staff."

This five year study will be funded through the Department's Lake Restoration Program. The Department will pay ISU an amount not to exceed \$673,958 over the five-year study. ISU will use these funds to pay for salaries and equipment. The costs will pay for approximately \$125,000 in travel to access lakes around the state; approximately \$50,000 for PhD student tuition; and over \$60,000 for supplies. The bulk of the remaining funds will pay for salaries.

Lake restoration efforts require significant planning, coordination, and funding. A systematic approach is necessary to ensure that the index development process is efficient and results in assessment tools and endpoints that accurately reflect ecological health and restoration success. ISU has the experience and expertise to provide this type of service, as evidenced by the numerous lake diagnostic/feasibility studies and aquatic ecosystem community assessments that have been provided to the Department.

Ken Herring, Administrator  
Conservation and Recreation Division

November 8, 2007